Claims

We Claim:

1.   A method for diverting the flow of a second fluid in a subterranean formation comprising:

        introducing into the subterranean formation a first fluid comprising:

                at least one carrier fluid, and

                at least one diverting agent, where the diverting agent is a solid,

                        particulate dicarboxylic acid;

        temporarily plugging off an interval of the formation with the diverting agent;
and

        introducing the second fluid where intrusion of the second fluid into the interval is at least partially inhibited.

2.   The method of claim 1 where the dicarboxylic acid is insoluble in both aqueous liquids and hydrocarbon liquids, but is soluble in mutual solvents or alcohol blends.

3.   The method of claim 1 where the dicarboxylic acid has a melting point from about 180 to about 300°F (about 82 to about 149°C).

4.   The method of claim 1 where the dicarboxylic acid has a formula molecular weight of from 146 to 400.

5.   The method of claim 1 where the solid, particulate dicarboxylic acid has a mesh size of from about 20 mesh to about 400 mesh (about 841 to about 38 microns).

6. The method of claim 1 where the proportion of diverting agent in the carrier fluid ranges from about 0.5 to about 5 wt.%.

7. The method of claim 1 where the dicarboxylic acid is selected from the group consisting of dodecanedioic acid, undecanedioic acid, decanedioic acid, azelaic acid, suberic acid, and mixtures thereof.

8. A method for diverting the flow of a second fluid in a subterranean formation comprising:

 introducing into the subterranean formation a first fluid comprising:

  at least one carrier fluid, and

  at least one diverting agent, where the diverting agent is a solid, particulate dicarboxylic acid, where the dicarboxylic acid is insoluble in both aqueous liquids and hydrocarbon liquids, but is soluble in mutual solvents or alcohol blends and where the proportion of diverting agent in the carrier fluid ranges from about 0.5 to about 5 wt.%;

 temporarily plugging off an interval of the formation with the diverting agent; and

 introducing the second fluid where intrusion of the second fluid into the interval is at least partially inhibited.

9. The method of claim 8 where the dicarboxylic acid has a melting point from about 180 to about 300°F (about 82 to about 149°C).

10. The method of claim 8 where the dicarboxylic acid has a formula molecular weight of from 146 to 400.

11. The method of claim 8 where the solid, particulate dicarboxylic acid has a mesh size of from about 20 mesh to about 400 mesh (about 841 to about 38 microns).

12. The method of claim 8 where the dicarboxylic acid is selected from the group consisting of dodecanedioic acid, undecanedioic acid, decanedioic acid, azelaic acid, suberic acid, and mixtures thereof.

13. A method for diverting the flow of a second fluid in a subterranean formation comprising:

introducing into the subterranean formation a first fluid comprising:

at least one carrier fluid, and

at least one diverting agent, where the diverting agent is a solid, particulate dicarboxylic acid, where the dicarboxylic acid is insoluble in both aqueous liquids and hydrocarbon liquids, but is soluble in mutual solvents or alcohol blends, has a melting point from about 180 to about 300°F (about 82 to about 149°C) and a formula molecular weight of from 146 to 400, and where the proportion of diverting agent in the carrier fluid ranges from about 0.5 to about 5 wt.%;

temporarily plugging off an interval of the formation with the diverting agent; and

introducing the second fluid where intrusion of the second fluid into the interval is at least partially inhibited.

14. The method of claim 13 where the solid, particulate dicarboxylic acid has a mesh size of from about 20 mesh to about 400 mesh (about 841 to about 38 microns).

15.   The method of claim 13 where the dicarboxylic acid is selected from the group consisting of dodecanedioic acid, undecanedioic acid, decanedioic acid, azelaic acid, suberic acid, and mixtures thereof.